


IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A location information recognition apparatus for recognizing location information written on a letter and constituted by categories which form a hierarchical structure with a plurality of stages varying with countries ~~changing in units of various countries~~, comprising:

 storing means storing dictionaries of a plurality of countries and recognition procedures of a plurality of countries, each of said recognition procedures corresponding to each category of the hierarchical structure with a plurality of stages of the location information;

~~means for selecting a dictionary and a procedure from a plurality of dictionaries corresponding to the various countries, respectively, and used to recognize the location information, and various recognition procedures which vary with the country and each of which corresponds to each category of the hierarchical structure with the plurality of stages of the location information;~~

selecting means selecting a dictionary and a procedure respectively from said plurality of dictionaries and said plurality of recognition procedures in accordance with a country in which the apparatus is provided; and

~~means for reading the location information written on the letter; and~~

recognizing means ~~[[for]]~~ recognizing the ~~[[read]]~~ location information using the selected dictionary in accordance with the recognition procedure selected by said ~~selection~~ selecting means.

2. (Currently Amended) A location information recognition method of recognizing a location information constituted by categories which form a hierarchical structure with a plurality of stages varying with countries ~~the country~~, comprising ~~the steps~~ of:

~~having a plurality of dictionaries corresponding to the various countries, respectively, and used to recognize the location information;~~

storing dictionaries of a plurality of countries and recognition procedures of a plurality of countries, each of said recognition procedures corresponding to each category of the hierarchical structure with a plurality of stages of the location information;

having various recognition procedures which vary with the country and each of which corresponds to each category of the hierarchical structure with the plurality of stages of the location information; and

~~in recognizing the location information, selecting one of the dictionaries, selecting one of the recognition procedures, and performing recognition processing on the basis of the selected dictionary and recognition procedure.~~

selecting one of the dictionaries and one of the recognition procedures respectively from said plurality of dictionaries and said plurality of recognition procedures in accordance with a country in which the apparatus is provided; and

performing recognition processing on the basis of the selected dictionary and recognition procedure.

3. (Canceled)

4. (Currently Amended) An apparatus according to claim 1, said recognizing means comprising: A location information recognition apparatus comprising:

read means [[for]] reading a location information image;

line detection means [[for]] detecting one or some character lines from the location information image read by said read means;

region detection means [[for]] detecting one or some regions where location information is written from the location information image read by said read means;

location information word detection means [[for]] dividing the character line detected by said line detection means and included in the location information region detected by said region detection means into one or a plurality of word regions;

word recognition means [[for]] recognizing a word by collating character information included in the word region obtained by said location information word detection means with a content of a word dictionary in which place names present in an area as a recognition target are registered; and

output means [[for]] outputting a recognition result of [[by]] said word recognition means as a recognition result of the location information.

5. (Currently Amended) [[An]] a location information recognition apparatus comprising:

read means reading a location information image;

line detection means detecting one or some character lines from the location information image read by said read means;

region detection means detecting one or some regions where location information is written from the location information image read by said read means;

location information word detection means dividing the character line detected by said line detection means and included in the location information region detected by said region detection means into one or a plurality of word regions;

first word recognition means recognizing the word by collating character information included in a first word region obtained by said location information word detection means with a content of a word dictionary in which the place names present in the area as the recognition target are registered and outputting a word evaluation value of the recognition result;

determination means determining whether the character information included in the first word region processed by said first word recognition means satisfies a condition for dividing the first word region into a plurality of words, wherein the condition is determined to be satisfied in a case where a distance between a certain consecutive two characters constituting a word is larger than a distance between other consecutive two characters constituting the same word;

second word recognition means recognizing the word by collating character information included in a third word region which connects the first word region processed by said first word recognition means and a second word region adjacent to the first word region in a same line with the content of the word dictionary and outputting a word evaluation value of the recognition result, and

output means comparing the word evaluation value of the recognition result by said first word recognition means with the word evaluation value of the recognition result by said second word recognition means and outputting the recognition result having a larger word evaluation value.

~~according to claim 4, wherein~~

~~said word recognition means comprises:~~

~~first word recognition means for recognizing the word by collating character information included in a first word region obtained by said location information word detection means with the content of the word dictionary in which the place names present in~~

~~the area as the recognition target are registered and outputting a word evaluation value of the recognition result, and~~

~~second word recognition means for recognizing the word by collating character information included in a third word region which connects the first word region processed by said first word recognition means and a second word region adjacent to the first word region in a same line with the content of the word dictionary and outputting a word evaluation value of the recognition result, and~~

~~said output means compares the word evaluation value of the recognition result by said first word recognition means with the word evaluation value of the recognition result by said second word recognition means and outputs the recognition result having a larger word evaluation value.~~

6. (Currently Amended) An apparatus according to claim 5, wherein

said second word recognition means comprises:

determination means [[for]] determining whether the character information included in the first word region processed by said first word recognition means satisfies a condition for dividing the first word region into a plurality of words[[,]]; and

third word recognition means [[for]], when said determination means determines that the condition for dividing the first word region into a plurality of words is satisfied, recognizing the word by collating each of the divided words with the content of the word dictionary and outputting a word evaluation value of a recognition result.

7. (Original) An apparatus according to claim 6, wherein the condition for dividing the character information into a plurality of words, which is determined by said determination means, is satisfied when a distance between two characters nearly

predetermined characters constituting the word is larger than a distance between other characters in the same word.

8. (Currently Amended) An apparatus according to claim 1 [[4]], wherein said recognizing means comprises: ~~wherein the location information image read by said read means is constituted by categories which form a hierarchical structure with a plurality of stages;~~

 said word recognition means comprises

read means reading a location information image;

line detection means detecting one or some character lines from the location information image read by said read means;

region detection means detecting one or some regions where location information is written from the location information image read by said read means;

location information word detection means dividing the character line detected by said line detection means and included in the location information region detected by said region detection means into one or a plurality of word regions;

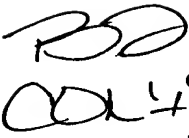
word recognition means recognizing a word by collating character information included in the word region obtained by said location information word detection means with a content of a word dictionary in which place names present in an area as a recognition target are registered; and

output means outputting a recognition result of said word recognition means as a recognition result of the location information;

setting means [[for]] setting an order of recognition of words in each word region obtained by said location information word detection means, which corresponds to each

category of the hierarchical structure with the plurality of stages constituting the location information;[[,]] and

second word recognition means [[for]] recognizing the word by collating the character information included in the word region obtained by said location information word detection means with a content of one of a plurality of word dictionaries in which different place names present in the area as the recognition target are registered in units of categories in accordance with the order of recognition for each word region, which is set by said setting means;[[, and]]

 wherein said output means ~~outputs~~ outputting a recognition result corresponding to each category by said second word recognition means as the recognition result of the address information.

9. (Currently Amended) An apparatus according to claim 1 [[4]], wherein said recognizing means comprises:

read means reading a location information image;

line detection means detecting one or some character lines from the location information image read by said read means;

region detection means detecting one or some regions where location information is written from the location information image read by said read means;

location information word detection means dividing the character line detected by said line detection means and included in the location information region detected by said region detection means into one or a plurality of word regions;

word recognition means recognizing a word by collating character information included in the word region obtained by said location information word detection means with

a content of a word dictionary in which place names present in an area as a recognition target are registered; and

output means outputting a recognition result of said word recognition means as a recognition result of the location information,

wherein the location information image read by said read means is constituted by categories which form a hierarchical structure with a plurality of stages,

said word recognition means comprises:

an [[IC]] integrated circuit which stores in advance an order of recognition of words

in each word region obtained by said location information word detection means, which corresponds to each category of the hierarchical structure with the plurality of stages constituting the location information[[,]]; and

second word recognition means [[for]] recognizing the word by collating the character information included in the word region obtained by said location information word detection means with a content of one of a plurality of word dictionaries in which different place names present in the area as the recognition target are registered in units of categories in accordance with the order of recognition for each word region, which is stored in said integral circuit; IC, and

wherein said output means ~~outputs~~ outputting a recognition result corresponding to each category by said second word recognition means as the recognition result of the address information.

10. (Currently Amended) An apparatus according to claim 1 [[4]], wherein said recognizing means comprises: ~~wherein~~

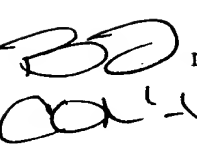
~~the location information image read by said read means is constituted by categories which form a hierarchical structure with a plurality of stages,~~



~~said word recognition means comprises~~

word extraction means, corresponding to one of a plurality of word dictionaries in which different place names present in the area as the recognition target are registered in units of categories, for extracting one or a plurality of words in the word dictionary, the words matching at least some of a plurality of combinations of character strings constituted by the character information included in the word region obtained by said location information word detection means;[[,]] and

second word recognition means [[for]] recognizing the word by collating the character information included in the word region obtained by said location information word detection means with the one or a plurality of words extracted by said word extraction means; [[, and]]

 wherein said output means ~~outputs~~ outputting a recognition result corresponding to each category by said second word recognition means as the recognition result of the address information.

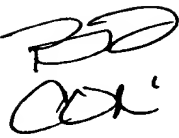
11. (Currently Amended) An apparatus according to claim 1 [[4]], wherein said recognizing means comprises: ,wherein

~~the location information image read by said read means is constituted by categories which form a hierarchical structure with a plurality of stages;~~

~~said word recognition means comprises~~

word extraction means [[for]], when the number of registered words in one of a plurality of word dictionaries in which different place names present in the area as the recognition target are registered in units of categories is not less than a predetermined number, extracting one or a plurality of words in the word dictionary, the words matching at least some of a plurality of combinations of character strings constituting the character information;[[,]]

first recognition means [[for]] recognizing the word by collating the character information with the one or a plurality of words extracted by said word extraction means;[[,]] and

 second recognition means [[for]] recognizing the word by collating the character information with the content of the word dictionary when the number of registered words in the word dictionary corresponding to a predetermined category is smaller than the predetermined number;[[, and]]

wherein said output means ~~outputs~~ outputting a recognition result by said first recognition means or a recognition result by said second recognition means as the recognition result of the address information.

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